

Appl. No. 09/753,227
Nortel Ref. No. 12917SS
Amdt. Dated: 09/14/2006
Reply to Office Action dated June 14, 2006

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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Cancelled)
2. (Previously Presented) A method comprising:
broadcasting a special delivery traffic indication message (DTIM) beacon by an access point, the special DTIM beacon comprising a field having a traffic indicator bit that is set to denote a transmission of a data frame after the DTIM beacon; and
broadcasting by the access point the data frame being a first frame transmitted after broadcasting the special DTIM beacon, the data frame comprises at least load balancing information.
3. (Previously Presented) The method of claim 2, wherein the special DTIM beacon is configured in accordance with the Institute of Electrical and Electronics Engineers (IEEE) 802.11 Standard, 1999 edition.
4. (Previously Presented) The method of claim 2, wherein the data frame further comprises a test pattern.
5. (Currently Amended) A method comprising:
broadcasting a special delivery traffic indication message (DTIM) beacon by an access point, the special DTIM beacon comprising a field having a traffic indicator bit that is set to denote a transmission of a data frame after the DTIM beacon; and
broadcasting the data frame being a first frame transmitted by the access point after the special DTIM beacon in order to reduce an amount of time required by a wireless unit in a power-save mode to remain powered-on to receive the data frame, the data frame including at least load balancing information by the access point.

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6. (Previously Presented) The method of claim 5, wherein the load balancing information includes a count being a number of wireless units in communications with the access point.

7. (Currently Amended) The method of claim 2, wherein the broadcasting of both the special DTIM beacon and the data frame is performed by an access point to a device being a wireless unit of a plurality of wireless units, the data frame being transmitted as the first frame after the special DTIM beacon in order to reduce an amount of time that the wireless unit remains powered-on when the wireless unit is in a said power-save mode.

8. (Previously Presented) The method of claim 7, wherein the load balancing information is computed from information pertaining to characteristics of the wireless unit in communication with the access point.

9. (Original) The method of claim 4, wherein the test pattern is a static bit pattern.

10. (Currently Amended) A method comprising:

providing an access point; and

broadcasting a modified beacon from the access point to a plurality of wireless units, the modified beacon comprises (i) a plurality of information elements comprising an access point name, an access point identifier information and a load balancing information being information pertaining to characteristics of the plurality of wireless units, and (ii) a first frame check sequence associated with the plurality of information elements, and (iii) a second frame check sequence associated with the plurality of information elements and the first frame check sequence.

11. (Currently Amended) The method of claim 10, wherein the modified beacon further comprises (iv) ~~(iii)~~ a test pattern so that the, and (iv) a second frame check sequence is associated with the plurality of information elements, the first frame check sequence and the test

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pattern and the first frame check sequence enables confirmation that the plurality of information elements are correctly received even if the test pattern contains error bits.

12. (Cancelled).

13. (Previously Presented) The method of claim 10, wherein the load balancing information includes a count of the plurality of wireless units that are sending or receiving data with the access point at a rate or volume above a threshold level.

14. (Previously Presented) The method of claim 10, wherein the modified beacon is one of a traffic indication map (TIM) beacon and a delivery traffic indication message (DTIM) beacon.

15. (Previously Presented) A method comprising:
modifying a beacon to produce a modified beacon, the modified beacon comprises a plurality of additional information elements comprising an access point name, an access point identifier information and a load balancing information being information pertaining to characteristics of at least one wireless unit in communication with an access point; and
transmitting the modified beacon by the access point.

16. (Original) The method of claim 15, wherein the modified beacon further comprises a first frame check sequence associated with the plurality of additional information elements.

17. (Original) The method of claim 16, wherein the modified beacon further comprises a test pattern and a second frame check sequence for the modified beacon.

18. (Original) The method of claim 15, wherein the modified beacon is a delivery traffic indication message (DTIM) beacon.

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19. (Original) The method of claim 15, wherein the modified beacon is a traffic indication map (TIM) beacon.

20. (Currently Amended) An access point comprising:
logic to broadcast a special delivery traffic indication message (DTIM) beacon comprising a traffic indicator comprising a traffic indicator bit that is set to denote transmission of a data frame; and

logic to broadcast the data frame as a first frame transmitted by the access point after broadcasting the special DTIM beacon in order to reduce an amount of time required by a wireless unit in a power-save mode to remain powered-on to receive the data frame, the data frame comprises at least one of a load balancing information and a test pattern.

21. (Previously Presented) The access point of claim 20, wherein the data frame broadcast from the access point comprises both the load balancing information and the test pattern.

22. (Previously Presented) The access point of claim 20, wherein the load balancing information comprises data pertaining to wireless units in communication with the access point and the access point.

23. (Original) The access point of claim 20, wherein the test pattern is a static bit pattern.

24. (Previously Presented) The access point of claim 20, wherein the logic broadcasts the data frame after a definitive time has elapsed after the special DTIM beacon has been broadcasted.

25. (Previously Presented) The method of claim 7, wherein the load balancing information comprises a count of a number of wireless units currently associated with the access point.

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26. (Previously Presented) The method of claim 7, wherein the load balancing information comprises an indicator as to whether the access point is able to accept one or more additional wireless units.

27. (Previously Presented) The method of claim 7, wherein the load balancing information comprises a value corresponding to a speed of an uplink from the access point to a backbone network at which the access point is coupled.

28. (Previously Presented) The method of claim 7, wherein the load balancing information comprises a count of a number of wireless units exchanging data with the access point at a rate or volume that exceeds a predetermined threshold.

29. (Previously Presented) The method of claim 15, wherein the beacon is configured in accordance with an Institute of Electrical and Electronics Engineers (IEEE) Standard 802.11, 1999 edition.

30. (Previously Presented) The access point of claim 20, wherein the special DTIM beacon is configured in accordance with an Institute of Electrical and Electronics Engineers (IEEE) 802.11 standard, 1999 edition.

31. (Previously Presented) The method of claim 7, wherein the device is a wireless unit.

32. (Previously Presented) The method of claim 10, wherein the load balancing information includes an indicator of a total utilization level of the access point.

33. (Previously Presented) The method of claim 10, wherein the load balancing information includes a number of wireless hops to a wired backbone network with which the access point is in communication.

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34. (Previously Presented) The method of claim 10, wherein the load balancing information includes an uplink speed from the access point to the wired backbone network.

35. (Cancelled).